Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
Use of Portions of Returned 2 GHz	)	IB Docket No. 05-221
Mobile Satellite Service Frequencies	)	

REPLY COMMENTS OF SPRINT NEXTEL CORPORATION

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August 15, 2005

Summary

The Commission should reallocate 13.3 MHz of the 2 GHz MSS spectrum for alternative uses. Neither of the incumbent MSS licensees has offered any compelling demonstration that the cost-free grant to them of an additional 13.3 MHz of spectrum will actually bring material new benefits to the American public. Indeed, most of the purported benefits are attributable to the satellite system itself, not the additional spectrum windfall these companies seek. In any case, the Commission has already recently concluded that an additional nearly 11 MHz of recovered MSS spectrum should be assigned to the two remaining incumbents. Granting them an additional 13.3 MHz does not serve the public interest.

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I. Introduction

Sprint Nextel Corporation (Sprint Nextel)[1] joins with U.S. Cellular Corporation (U.S. Cellular), Intel Corporation (Intel), CTIA—the Wireless Association (CTIA), and Cingular Communications (Cingular) in recommending that the Commission allocate at least one-third of the recaptured 2 GHz mobile-satellite service (MSS) spectrum to terrestrial wireless services.[2]

Demand for 2 GHz spectrum remains exceptionally high. Rather than give away an additional 13.3 MHz of this precious national resource to two companies that have never served a single customer and remain years away from commercial deployment, the Commission should reallocate one-third of the 2 GHz MSS Band spectrum for flexible terrestrial use and resolve any mutually exclusive applications through competitive

[1] Sprint Corporation and Nextel Communications, Inc. closed their $71 billion merger on August, 12, 2005.

[2] *See* Comments of U.S. Cellular Corporation, IB Docket 05-221 (U.S. Cellular Comments); Comments of CTIA—the Wireless Association, IB Docket 05-221 (CTIA Comments); Comments of Intel Corporation, IB Docket 05-221 (Intel Comments); Comments of Cingular Communications, IB Docket 05-221 (Cingular Comments).

bidding.[3] Market forces, not government regulators, will best decide what services consumers want.

II. Discussion

In two separate public notices, the Commission sought comment on how best to bring valuable, but long-underused 2 GHz MSS spectrum into the service of the American public.[4] After six of eight MSS licensees failed to meet their implementation milestones or surrendered their licenses without constructing systems,[5] the Commission proposed to divide the current forty-megahertz wide 2 GHz MSS band into thirds.[6] The Commission tentatively decided to give two thirds of the 2 GHz MSS band to the only two surviving MSS licensees – ICO Satellite Services G.P. (ICO) and TMI Communications and Company Limited Partnership (TMI) – and asked whether to allocate the remaining one-third of the spectrum to other uses, including terrestrial wireless services.

Comments in this proceeding evidence no consensus on the best use of the recovered one-third of the MSS spectrum at issue in this proceeding. A majority of

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[3] *See, e.g.*, CTIA Comments at 10 ("best use of the unassigned spectrum should be determined by market forces at auction by reallocating the spectrum to flexible, terrestrial use").

[4] *Commission Invites Comments Concerning Use of Portions of Returned 2 GHz Mobile Satellite Service Frequencies*, Public Notice, FCC 05-133, IB Docket 05-220 (rel. June 29, 2005) (First 2 GHz MSS Public Notice); *Commission Invites Comments Concerning Use of Portions of Returned 2 GHz Mobile Satellite Service Frequencies*, Public Notice, FCC 05-134, IB Docket 05-221 (rel. June 29, 2005) (Second 2 GHz MSS Public Notice).

[5] *See Mobile Communications Holdings, Inc. and Constellation Communications Holdings, Inc.*, 18 FCC Rcd 1094 (IB 2003), *aff'd*, 19 FCC Rcd 11631 (2004), *appeal pending sub nom. ICO Global Communications (Holdings) Limited v. FCC*, No. 04-1428 (D.C. Cir. filed July 23, 2004); *Globalstar, L.P.*, 18 FCC Rcd 1249 (IB 2003), *aff'd*, 19 FCC Rcd 11548 (2004), *recon. pending*.

[6] *First 2 GHz MSS Public Notice* at 1; *Second 2 GHz MSS Public Notice* at 1-2.

commenters agree, however, that the Commission should not assign this spectrum to the two incumbent MSS licensees. For example:

- Sirius Satellite Radio, Inc. (Sirius), a satellite digital audio radio service (SDARS) operator, wants the spectrum for its SDARS operations.[7]

- The Society of Broadcast Engineers (SBE) wants the spectrum for broadcast operations and, indeed, hopes to install new Broadcast Auxiliary Services (BAS) equipment in the band even as Sprint Nextel spends hundreds of millions of dollars to uninstall existing BAS equipment from this spectrum and relocate to Commission-specified new spectrum assignments.[8]

- CTIA, Cingular, Intel, U.S. Cellular and other terrestrial wireless carriers assert that the public interest will be best served by using this spectrum to offer innovative new services to consumers using terrestrial wireless infrastructure.[9]

- The American Petroleum Institute (API) on behalf of its petroleum and natural gas distribution service members wants the spectrum for use by the petroleum and natural gas industry.[10]

- Various foreign and domestic MSS contractors and Inmarsat Ventures Limited (Inmarsat), an MSS operator, want the spectrum set aside yet again for MSS systems.[11]

Nevertheless, TMI and ICO, unsatisfied with two-thirds of a loaf, demand the Commission award them cost-free access to the entire 2000-2020/2180-2200 MHz band

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[7] Comments of Sirius Satellite Radio Network, Inc., IB Docket 05-221, 2 (July 29, 2005).

[8] Comments of the Society of Broadcast Engineers, Inc., IB Docket 05-221, 1 (July 29, 2005).

[9] CTIA Comments at iii ("the spectrum should be reallocated to flexible, terrestrial use and made available at auction to all interested parties."); Intel Comments at 9 ("Available quantitative and qualitative data indicate that the marketplace would place a much higher value on the unassigned 2 GHz band spectrum under a terrestrial wireless allocation than under the existing MSS allocation."); U.S. Cellular Comments at 2 ("the Commission should . . . invite[e] comment on the reallocation of one-third of the 2 GHz MSS spectrum for terrestrial mobile and fixed uses subject to auction selection").

[10] Comments of American Petroleum Institute, IB Docket 05-221, 3 (July 29, 2005).

[11] *See, e.g.*, Comments of The Boeing Company, IB Docket 05-221, 4 (July 29, 2005); Comments of Globalstar LLC, IB Docket 05-221, i (July 29, 2005);Comments of Inmarsat Ventures Limited, IB Docket 05-221, 2 (July 29, 2005).

for the MSS systems they and their contractors hope one day to operate.[12] As a threshold matter, the Commission must decide whether TMI and ICO's purported public interest benefits justify awarding the only two surviving incumbents the additional 13.3 MHz of valuable spectrum at issue in this proceeding in light of: (1) the 8 MHz each 2 GHz MSS licensee currently holds, and (2) the additional 10.67 MHz the Commission seems inclined to give them in Docket 05-220.

The ORBIT Act appears to limit the Commission's ability to develop mechanisms that would put TMI's and ICO's purported need for spectrum to a market test.[13] The ORBIT Act exempts spectrum used for the provision of international or global satellite communications services from the general rule of competitive bidding.[14] Accordingly, the threshold question in this proceeding is whether to again allocate this spectrum to MSS use or allocate it instead for terrestrial use and assign it through competitive bidding.

The starting point for the cost-benefit analysis that the Commission must conduct is whether or not the marginal incremental benefit of giving an additional 13.3 MHz of 2 GHz MSS spectrum to two MSS incumbents that already bear an obligation to provide

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[12] Comments of TMI Communications and Company Limited Partnership and TerreStar Networks Inc., IB Docket 05-221, i (July 29, 2005) (TMI Comments); Comments of ICO Satellite Services G.P., IB Docket 05-221, 2 (July 29, 2005) (ICO Comments). A few contractors for these two licensees filed comments in support of their clients' positions. *See, e.g.*, Comments of EADS North America Defense Company, IB Docket 05-221, 1 (July 29, 2005).

[13] *See Open-Market Reorganization for the Betterment of International Telecommunications Act*, Pub. L. No. 106-180, § 3, 114 Stat. 48, 57 (2000), *codified at* 47 U.S.C. § 765f (ORBIT Act).

[14] ORBIT Act, § 647 ("Notwithstanding any other provision of law, the Commission shall not have the authority to assign by competitive bidding…spectrum used for the provision of international or global satellite communications services.").

satellite service to the entire United States outweighs the forgone opportunities of assigning this spectrum to some other use.[15] The Office of Management and Budget (OMB) has directed the Federal Communications Commission and other federal agencies within its jurisdiction to consider the full impact of their regulatory actions.[16]

As a preliminary matter, neither TMI, nor ICO have identified any specific or general market failure that requires the Commission to award them cost-free access to taxpayer resources valued in the billions of dollars.[17] The market for terrestrial wireless services is highly competitive, and even the two incumbent 2 GHz MSS licensees concede that the market for MSS is also competitive. Without any market failure to support the spectrum give-away they seek, TMI and ICO try to focus the Commission's attention on the benefits that they claim their MSS systems as a whole might one day offer consumers.

These claims are irrelevant. TMI and ICO must offer service persons throughout the United States or lose their MSS license and the cost-free spectrum that goes along

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[15] *See* Office of Management and Budget Circular A-4, *Regulatory Analysis* (Sept. 17, 2003) (OMB Regulatory Analysis Directive), *available at* <http://www.whitehouse.gov/omb/circulars/a004/a-4.html>. Specifically, OMB has directed the Commission to include separate schedules of the monetized benefits and costs that show the type and timing of benefits and costs, and express the estimates in this table in constant, undiscounted dollars; to list quantifiable benefits and costs that are not readily monetized, including their timing; to describe unquantifiable benefits and costs it cannot quantify; and to identify or cross-reference the data or studies, including peer-reviewed studies, on which the agency bases its benefit and cost estimates. *Id.* at 18.

[16] OMB Regulatory Analysis Directive at 17-18.

[17] *Id.* at 3-4, *citing* Executive Order 12866, *Regulatory Planning and Review*, 58 Fed. Reg. 51735 (requiring "Federal agencies" – including the Federal Communications Commission – to "promulgate only such regulations as are required by law, are necessary to interpret the law, or are made necessary by compelling need, such as material failures of private markets to protect or improve the health and safety of the public, the environment, or the well being of the American people").

with it.[18] Thus, the proper focus of the Commission's inquiry is not on the benefits that MSS systems as a whole may or may not bring to some subset of consumers. Rather, the Commission's analysis should focus on the marginal incremental benefit that giving an additional 13.3 MHz of spectrum to these systems might offer. As explained below, TMI and ICO overstate the possible benefits by focusing almost exclusively on their planned systems as a whole. To the extent the two incumbents suggest incremental gains attributable solely to cost-free access to 13.3 MHz of valuable spectrum, the purported benefits are limited and highly suspect.

Sprint Nextel agrees with CTIA, Cingular, and Intel, and U.S. Cellular that giving the 13.3 MHz of 2 GHz spectrum at issue in this proceeding to the two non-operational incumbent 2 GHz MSS licensees that have no facilities, no customers, and limited prospects for success is unwarranted. CTIA said it best when it explained that "TMI and ICO are not operational and have *no* immediate spectrum needs."[19] As Cingular noted, TMI and ICO already have access to 8 MHz of spectrum each, which represents three megahertz more than the spectrum the Commission estimated they would require when it licensed these systems at the peak of the telecommunications bubble in 2000.[20]

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[18] *See Establishment of Policies and Service Rules for the Mobile Satellite Service in the 2 GHz Band*, 15 FCC Rcd 16127, ¶ 59 (2000) (2 GHz MSS Service Rules Order) (requiring geostationary 2 GHz MSS licensees to provide service coverage "to all 50 states, Puerto Rico, and the U.S. Virgin Islands").

[19] CTIA Comments at 1; *see* Inmarsat Comments at 2 ("there is no record justification for awarding more 2 GHz MSS spectrum to TMI and ICO as neither company has actually operated an MSS satellite system, and each remains years away from ever doing so").

[20] Cingular Comments at 2; *see Establishment of Policies and Service Rules for MSS in the 2 GHz Band*, Report and Order, IB Docket No. 99-81,15 FCC Rcd 16127, ¶ 17 (2000) (holding that "five megahertz of spectrum assigned to one system, 2.5 megahertz in either direction, is sufficient for commencement of service."). In addition, both TMI and ICO are also authorized to operate their MSS systems outside their selected assignments on a secondary basis, which offers them additional spectrum. *See* Cingular Comments at 2,

Moreover, the Commission's public notice in Docket 05-220 all but concludes that TMI and ICO should receive 10.67 MHz of additional 2 GHz spectrum at no cost.[21] Before the Commission showers ICO and TMI with yet another 13.3 MHz of cost-free spectrum in this docket, therefore, TMI and ICO must demonstrate an extraordinarily compelling need for this windfall at the expense of the public. Neither company comes close.

To justify the proposed spectrum give away, TMI and ICO claim that their system will promote homeland security.[22] While various government pronouncements on the value of secure telecommunications infrastructure are cited, the 2 GHz MSS incumbents do not show how giving an additional 13.3 MHz to the two incumbent MSS licensees would increase security.[23] TMI says that it hopes giving it and ICO the additional 13.3 MHz of spectrum valued at billions of dollars will allow TMI to "continue its efforts to develop a platform for important emergency response and homeland security wireless applications."[24] TMI does not explain what these homeland security wireless applications are, when – if ever – it will deploy them, or how these services would differ from the low-cost and extensive suite of services that commercial terrestrial carriers offer today without billions of dollars in new spectrum subsidies. Hedged by numerous

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citing Comments of Sirius in IB Docket 05-220 at 4 n.14; *Flexibility for the Delivery of Communications by MSS Providers*, Report and Order, 18 FCC Rcd. 1962, 2009 ¶ 89 (2003), *recon.*, 18 FCC Rcd. 13590 (2003), *further recon.*, 20 FCC Rcd. 4616 (2005).

[21] *First 2 GHz MSS Public Notice* at 1-2 ("We intend to modify the spectrum reservations of ICO and TMI . . . such that ICO and TMI each will have one-third of the forty megahertz of spectrum in the 2 GHz MSS bands.").

[22] TMI Comments at 7; ICO Comments at 7-8.

[23] TMI Comments at 7-10. Contrary to TMI's implication, the record herein contains no documentation of whether and how an additional 13.3 MHz of spectrum will enable TMI's single-satellite, geostationary, commercial MSS system to ensure that United States military forces remain able to generate, use, and share information in a secure operational environment.

[24] TMI Comments at 9.

caveats, TMI's promises pale in comparison to the actual services that terrestrial wireless carriers could provide today to the public safety community using the same spectrum resources TMI and ICO want for free.[25]

TMI and ICO also suggest that giving it cost-free access to spectrum will promote broadband deployment in rural areas.[26] Neither TMI, nor ICO, however, ever actually commit to using their satellite infrastructure to deploy *broadband* services to rural areas. For its part, TMI carefully limits its promise to providing "mobile data services" – not high-speed data or broadband services – to rural America. While a 6.7 MHz increase in bandwidth would theoretically allow the MSS data rate to be increased somewhat, the reality is that satellite signals lose strength as they travel the 22,300 miles from geostationary orbit to Earth. Indeed, the path loss from space to Earth lowers the necessary carrier-to-noise ratios (C/I) to levels just high enough to support voice or low-speed data services. Overcoming the C/I deficit inherent in MSS systems to provide a competitive broadband service would require the MSS incumbents to make fairly dramatic additional changes to their satellite systems, including further increases to satellite power and satellite antenna size and marked improvements to the radiofrequency performance of devices on the ground. Putting aside this physical reality, TMI also ignores the fact that – as a condition of its MSS license grant – it must already offer these

[25] Sprint Nextel offers disaster support by providing wireless equipment and services to emergency and disaster recovery personnel during declared emergencies in both urban and rural environments. Sprint Nextel also offers the i325 IS, which meets military standard 810 C/D/E for resistance to vibration, mechanical shock, rain, and dust. The i325 IS, which can access Sprint Nextel's network on a priority and preemptive basis, is equipped with Emergency Group Connect, an exclusive service from Sprint Nextel offered to public safety agencies.

[26] TMI Comments at 14; ICO Comments at 3-4.

services to all Americans or risk forfeiture of its MSS license and all the taxpayer-subsidized spectrum behind it.[27]

TMI also claims that giving away additional national spectrum resources to an incumbent licensee that undertakes absolutely no obligation in exchange for the cost-free grant of spectrum will promote competition in the market for mobile voice and data services.[28] TMI has demonstrated no compelling need for this additional capacity given its non-existent consumer base and its novel, untested satellite system.[29]

Against the dubious benefits of simply giving the spectrum away to the 2 GHz MSS incumbents are the very real costs – including the cost of choking off new opportunities to small, minority-owned, and rural businesses – that the spectrum give away will cause. Commenters to this proceeding have proposed a number of compelling and highly valuable alternatives to MSS use of this band. The costs of the TMI-ICO spectrum give away far outweighs the benefit of directing this national resource to any one of a number of more productive uses. Simply giving the spectrum to ICO and TMI, therefore, is not warranted.

III. Conclusion

Cost-free grant of 13.3 MHz of spectrum to ICO and TMI will direct investment away from homeland security, rural deployment, and broadband by creating perverse

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[27] *2 GHz MSS Service Rules Order*, 15 FCC Rcd at ¶ 59.

[28] TMI Comments at 17 (claiming that "if provided enough spectrum, TMI/TerreStar will be a potential voice and high-speed data communications option").

[29] TMI concedes as much when it suggests that this spectrum may not be needed to serve customers until its planned satellite nears the end of its useful life in the year 2020. TMI Comments at 14 (claiming that, because "the life expectancy of its satellite is 15 years or longer from launch," TMI is entitled to spectrum based on needs that may not materialize, if at all, "until the year 2020" or later).

incentives that reward regulatory gamesmanship over vigorous competition on price, performance, and innovation. The Commission should reallocate the 13.3 MHz of spectrum from MSS to flexible terrestrial wireless services.

Respectfully submitted,

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August 15, 2005